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Keywords: Chronic pain; Organization; Integration; Interdisciplinary; Complex intervention
Introduction.– The treatment of complex neuro-orthopedic disorders involves the integration of several medical specialty. The purpose of this work is to quantify the medicochirurgical collaboration in handicap care, at the University Hospital of Reims.
Method.– Retrospective descriptive study conducted at the University Hospital of Reims between 1st January 2006 and 31 December 2012. Successive inclusion of all adult patients who have surgery after multidisciplinary decision MPR-neurosurgery–orthopedics. Results are classified by type of symptom.
Results.– Four hundred twenty-seven patients received at least one neurosurgery over this period.
Treatment of muscle hypertonia and dystonia:
– selective neurotomy in lower limbs: 67 (16%), 51 (76%) with tenotomy, 14 (21%) with tendon transpositions and 12 (18%) with arthrodesis;
– selective neurotomy in upper limbs associated with tenotomy: 32 (7.5%), 7 (22%) with joint release;
– intrathecal baclofen pump: 64 (15%) with 5/64 (7.8%) associated with morphine and/or ziconotide injection.
Pain:
– intrathecal morphine or ziconotide pump for non-cancer pain: 115 (27%);
– posterior cord stimulation: 112 (26%), with 37 (33%) multi-column electrodes for chronic lumbosacral radicular pain;
– cortical stimulation for face and upper limb chronic pain: 34 (8%), and for tinnitus: 12 (2.8%);
– percutaneous stimulation for low back pain: 4 (1%);
– percutaneous stimulation for greater occipital nerve neuralgia: 13 (3%).
Discussion/Conclusion.– The collaboration of neurosurgeon, orthopedics surgeon and PMR doctor is a guarantee of quality, efficiency and access to optimal care. The number of surgery for each patient is reduced as their length. This working together should be generalized. If the number of anesthetics per patient is reduced, number of acts increases (pump fills, neurostimulators and pump adjustment). This integrate collaboration induces better management of patients.

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Motor cortex stimulation and neuropathy pain. Which indication for which results? Experience from Reims

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Keywords: Cortical stimulation; Neuropathic pain
Introduction.– Consequence of nerve and central nervous system lesion, treatment of neuropathic pain is difficult. Only a third of patients has a benefit of medication (anti-epileptic or antidepressure treatment). Cortical stimulation represents a major progress for chronics and rebels pain.
Initially for thalamic pain, cortical stimulation is developed in other indications with specifics results.
Patients et methods.– Reviewing from neurosurgicals files of Reims center, between 2004 to 2012: 27 files, 12 females and 15 males, between 31 to 60 years old. Three kinds of neuropathic pain: from medullar lesion (trauma, post-surgery, syringomyelia. . .), from cranial lesion (vascular, tumoral. . .), and from nerve lesion (facial nevralgia, phantom limb, algodystrophia. . .).
All patients were treated with an effective transcranial stimulation (rTMS) before surgery.
Assessment of patient pain (EVA) and quality of life according to etiology and length of time. Study of evolution of symptoms in time.
Results.– Improvement of pain changes between 50% to 100%. No difference between male and female. Peripheral pain is quickly stabilised (6 months), with a better improvement (70%) and a great stability in time.
In regard of brain etiology, stroke are still the best indication, but tumoral lesion are less adequate (50%), nevertheless the low population ($n = 2$). Stimulation intensity is lower (2.0 V).
Regarding medullar lesions, results are disappointing (55%). The stabilisation takes time (2 years) and the pain changes with atmospheric conditions. Stimulation intensity is stronger (3.5 V) and is disappointed. The drugs are equal.
Conclusion.– In theory, cortex stimulation is a treatment of a symptom no matter of the etiology.
Phantoms limbs and algodystrophia had a bad reputation. In this study, the results are satisfactory, specially in long term.
But medullar lesions are more disappointing, but cortex stimulation is still the last possibility of treatment.

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Ziconotide intrathecal treatment, long-term experience

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Keywords: Chronic pain; Intrathecal treatment; Ziconotide; Long-term
Introduction.– Intrathecal ziconotide has shown effectiveness in chronic pain treatment. We studied its long-term tolerance and efficiency.
Patient.– Thirty-nine patients have been treated with a continuous intrathecal infusion of ziconotide, 16 female and 23 male, average age 58 years old [36; 79]. Twenty-four had chronic lomboradicular pains, 9 had cancer related pain (among them 4 were at a palliative stage), 4 spine injuries, 1 cerebral palsy et 1 peripherical nerve lesion. Eleven received ziconotide only, 15 an association of ziconotide and morphine, 6 a tritherapy associating ziconotide, morphine and ropivacain and 7 had ziconotide, morphine and baclofene.
Results.– The average follow-up was 18.5 months [5; 48], 14/39 (36%) were treated for more than 24 months. The average decrease of pain intensity was equal to 31 mm on visual analog pain scale, from 68 to 37 after ziconotide introduction. Average ziconotide posologies were 3.1 µg per day [0.5; 6.5]. Seventeen (44%) out of 39 patients suffered from side effects, treatment had to be stopped for 13/39 (33%) with a full recovery after treatment interruption. Most of the side effects occurred during the first semester of our experience of ziconotide use due to a quick posology increase. The commonest side effects were: nausea, dizziness, ataxia, visual and/or auditry hallucination. No treatment failure has been notice for our 4 years of practice.
Conclusion.– Intrathecal ziconotide is still quite efficient and well tolerated even after 4 years of continuous administration. There is no complication if the posology is inferior to 4 µg per day. For cancer related pains, ziconotide has to be introduced as early as possible, for long survivors it remains efficient (more than 40 months in our population). Multiple associations are possible and efficient even if ziconotide stability has to be studied in these conditions.

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Value of neuro-orthopedic surgery in the management of the spastic lower limb in adults: A retrospective study of 28 patients

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